

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An information processing system for generating a command to print a graphical layer and a coding layer on a substrate, the information processing system comprising:

a storage unit with a first interface for receiving and storing a plurality of graphical objects, the plurality of graphical objects being characterized by user-readable graphic information configured for application to a substrate, and a second interface for reading the stored plurality of graphical objects; and

an allocation unit configured to assign on command and in response to a selection of a current graphical object from the plurality of graphical objects, from a position data bank, position data for ~~[[a]]~~ the current graphical object, and to provide allocation data which associates said assigned position data with the current graphical object, wherein the position data represents position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks~~;

wherein the second interface of the storage unit is configured to allow selection of the current graphical object from the plurality of graphical objects stored in the storage unit, ~~wherein the allocation unit is commanded to assign the position data in response to a selection of the current graphical object~~, and

wherein the allocation unit provides said assigned position data to a combining module for printing the graphical layer including the user-readable graphic information

corresponding to the current graphical object and the ~~plurality of optically detectable marks~~ coding layer including the position code on [[a]] the substrate for forming a printed coded base.

2. (Previously Presented) The system as claimed in claim 1, further comprising a directing unit which is designed to direct, on the basis of said allocation data, said position data from a digital unit to a current processing unit among a plurality of processing units in the system, the processing units being configured to receive, from the digital unit, said position data and process said position data according to predetermined rules.

3. (Previously Presented) The system as claimed in claim 2, wherein said allocation data comprises an address identifier which is associated with a network address of said current processing unit.

4. (Previously Presented) The system as claimed in claim 3, wherein the directing unit is designed to receive at least a subset of said position data from the digital unit, identify on the basis of said position data said address identifier for the current processing unit, and send said address identifier to the digital unit.

5. (Previously Presented) The system as claimed in claim 4, wherein the allocation unit is adapted to transfer said address identifier to said directing unit, in

response to an address query from the directing unit and based on position data included in said address query.

6. (Previously Presented) The system as claimed in claim 1, wherein each graphical object is associated with a respective address identifier in the storage unit, and wherein the storage unit is adapted to transfer to said allocation unit said address identifier for a processing unit, the processing unit being configured to receive, from a digital unit, said position data and process said position data according to a predetermined rule.

7. (Previously Presented) The system as claimed in claim 6, wherein the storage unit provides said address identifier in connection with the reading of the associated graphical object through the second interface, and wherein the allocation unit is adapted to receive said address identifier in connection with the allocation of position data for the current graphical object.

8. (Previously Presented) The system as claimed in claim 2, wherein the directing unit is designed to fetch said allocation data from the allocation unit and to send at least a subset of said allocation data to the digital unit.

9. (Previously Presented) The system as claimed in claim 2, wherein the current processing unit is designed to fetch at least a subset of said allocation data upon receipt of at least a portion of said position data from the digital unit.

10. (Previously Presented) The system as claimed in claim 1, wherein said allocation data comprises an object identifier which is associated with the current graphical object.

11. (Previously Presented) The system as claimed in claim 10, further comprising a current processing unit that receives detected position data from a digital unit, identifies an assigned rule object on the basis of said object identifier, and processes said position data according to the assigned rule object.

12. (Previously Presented) The system as claimed in claim 10, wherein each graphical object is assigned to a corresponding unique object identifier.

13. (Previously Presented) The system as claimed in claim 12, wherein the object identifiers are stored in the storage unit.

14. (Previously Presented) The system as claimed in claim 13, wherein the second interface of the storage unit allows selection of the current graphical object if the object identifier for the current graphical object corresponds to one of the object identifiers stored in the storage unit.

15. (Previously Presented) The system as claimed in claim 10, wherein the object identifier is incorporated in the associated graphical object.

16. (Previously Presented) The system as claimed in claim 10, wherein the object identifier is computable based on the graphical object.

17. (Previously Presented) The system as claimed in claim 1, further comprising a browser unit which is connected to the second interface of the storage unit, the browser unit including a display for exposing one or more of said graphical objects and a means for selecting the current graphical object among the one or more of said graphical objects exposed on said display.

18. (Canceled).

19. (Canceled).

20. (Previously Presented) The system as claimed in claim 1, wherein the storage unit comprises a format converter which is adapted to convert the graphical object from a first format into a second format.

21. (Previously Presented) The system as claimed in claim 20, wherein the first format is an image file format and the second format is a print file format.

22. (Previously Presented) The system as claimed in claim 1, wherein the storage unit comprises a rule object generator which is designed to generate a rule

object from said graphical object, and wherein the storage unit is adapted to provide the generated rule object in the system.

23. (Currently Amended) An information processing system for generating a command to print a graphical layer and a coding layer on a substrate, the information processing system comprising:

an allocation unit which assigns, on command in response to a selection of a current graphical object from a plurality of graphical objects characterized by user-readable graphic information configured for application to a substrate, position data for the current graphical object from a position data bank, and provides allocation data which associates said assigned position data with the current graphical object, wherein the position data represents position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks~~;

a directing unit which directs, on the basis of said allocation data, position data detected by a digital unit to a current processing unit among a plurality of processing units in the system, the processing units being configured to receive, from the digital unit, said position data and process said position data according to predetermined rules; and

a combining module for printing the graphical layer including the user-readable graphic information corresponding to the current graphical object and the coding layer including the position code ~~plurality of optically detectable marks~~ on ~~[[a]]~~ the substrate for forming a printed coded base.

24. (Previously Presented) The system as claimed in claim 23, wherein said allocation data comprises an object identifier which identifies the current graphical object in the system.

25. (Previously Presented) The system as claimed in claim 24, wherein said allocation unit is configured to receive said object identifier with the command to assign position data.

26. (Previously Presented) The system as claimed in claim 24, wherein the directing unit is configured to receive and store an association between the object identifier and a network address of one of said processing units.

27. (Previously Presented) The system as claimed in claim 23, wherein said allocation data comprises an instance identifier which identifies the assignment of position data.

28. (Previously Presented) The system as claimed in claim 27, wherein the instance identifier identifies graphical data which is to be applied to the substrate together with the graphic information, the system thereby allowing the current processing unit to access, based on said association data, said graphical data.

29. (Previously Presented) The system as claimed in claim 27, wherein the instance identifier includes said graphical data.

30. (Currently Amended) An information processing system for generating a command to print a graphical layer and a coding layer on a substrate, the information processing system comprising:

an allocation unit which assigns, on command in response to a selection of a current graphical object from a plurality of graphical objects characterized by user-readable graphic information configured for application to a substrate, position data for the current graphical object from a position data bank, and provides allocation data, which associates said assigned position data with a rule object which represents the current graphical object and defines predetermined rules for processing the position data, wherein the position data represents position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks;~~

a combining module for printing the graphical layer including the user-readable graphic information corresponding to the current graphical object and the coding layer including the position code ~~plurality of optically detectable marks~~ on ~~[[a]]~~ the substrate for forming a printed coded base; and

a processing unit configured to receive detected position data from a digital unit, obtain the rule object upon receipt of the detected position data, and process said detected position data according to the rule object.

31. (Previously Presented) The system as claimed in claim 30, further comprising a storage unit which is arranged to receive and store the current graphical object,

wherein said processing unit is further configured, upon receipt of said position data, to obtain the current graphical object.

32. (Previously Presented) The system as claimed in claim 31, wherein said allocation unit further provides locating data, which identifies the location of the current graphical object in the storage unit and wherein said processing unit is configured to use said locating data to locate the current graphical object.

33. (Currently Amended) An information processing system for generating a command to print a graphical layer and a coding layer on a substrate, the information processing system, comprising:

at least one digital unit which is designed to detect position data on a coded base;

a processing unit which is designed to receive from the digital unit said position data and process the position data according to predetermined rules;

a storage unit with a first interface for receiving and storing a plurality of graphical objects that are characterized by user-readable graphic information configured for application to a substrate, and a second interface for reading the stored graphical objects; and

an allocation unit configured to assign on command and in response to a selection of a current graphical object from the plurality of graphical objects, from a position data bank, the position data for [[a]] the current graphical object, and to provide allocation data which associates said assigned position data with the current graphical

object, wherein the position data represents position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks;~~

wherein the second interface of the storage unit is configured to allow selection of the current graphical object from the plurality of graphical objects stored in the storage unit, ~~wherein the allocation unit is commanded to assign the position data in response to a selection of the current graphical object, and~~

wherein the allocation unit provides said assigned position data to a combining module for printing the graphical layer including the user-readable graphic information corresponding to the current graphical object and the coding layer including the position code ~~plurality of optically detectable marks on [[a]] the~~ substrate for forming the coded base.

34. (Currently Amended) A method of performing, in an information processing system, generation on demand of a position-coded base including a graphical layer and a coding layer, said method comprising:

detecting a selection of a current graphical object among a [[set]] plurality of graphical objects pre-stored in the system, each graphical object including user-readable graphic information configured for application to a substrate and corresponding to a rule object which connects at least one measure to the user-readable graphic information;

assigning from a position data bank position data for the current graphical object in response to the selection of the current graphical object from the plurality of graphical

objects, wherein the position data represents position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks~~;

printing the coding layer including the position code ~~plurality of optically-detectable marks~~ and the graphical layer including the user-readable graphic information defined by the current graphical object on ~~[[a]]~~ the substrate for forming said base; and

providing in the system allocation data which associates said assigned position data with the graphical object in such a manner that position data read from the base can be processed using the rule object that corresponds to the current graphical object.

35. (Previously Presented) The method as claimed in claim 34, wherein the rule object connects said at least one measure to at least one position in a local coordinate system which is defined relative to a reference point in the graphic information, and wherein the method further comprises converting said read position data into at least one position in said local coordinate system; and processing the read position data using the rule object.

36. (Previously Presented) The method as claimed in claim 35, wherein said assigned position data includes at least one position in a set of positions, which is divided into predetermined groups of positions, and wherein the step of converting said read position data is carried out with knowledge of the division of the set of positions.

37. (Original) The method as claimed in claim 35, wherein said allocation data comprises a connection between said assigned position data and at least one corresponding position in said local coordinate system, and wherein the step of converting said read position data is carried out based on said allocation data.

38. (Previously Presented) The method as claimed in claim 34, wherein said rule object defines said measures in relation to a position data reference point, which is implicitly connected to the graphic information via a predetermined spatial interrelationship between the graphic information and the assigned position data on said substrate.

39. (Previously Presented) The method as claimed in claim 34, wherein said allocation data comprises an address identifier, which is associated with a network address of a processing unit to which said rule object in the system is assigned.

40. (Previously Presented) The method as claimed in claim 34, wherein said allocation data comprises an object identifier which is associated with the current graphical object.

41. (Currently Amended) A method of enabling, in an information processing system, printing on demand of one or more position-coded bases including a graphical layer and a coding layer, the graphical layer including [[with]] graphical information

thereon, said graphical information being given by a graphical object which defines a number of physical pages, said method comprising:

defining equal-sized units of a position area, the position area being a portion of a position code, ~~the position code including a plurality of optically detectable marks;~~

generating, based on the graphical object, a rule object which associates at least one measure to at least one position in a local coordinate system which is defined relative to a reference point in any one of said units;

detecting a selection of the graphical object among a ~~[[set]]~~ plurality of graphical objects pre-stored in the system, the graphical objects characterized by user-readable graphic information configured for application to the graphical layer of a substrate;

assigning, on command in response to the selection of the graphical object, one unit of the position area for each physical page defined by the graphical object;

providing, in the system, position data for each assigned unit, for use in the printing of said coding layer included in one ~~[[of]]~~ or more position-coded bases;

generating allocation data which associates the position data of each assigned unit with the rule object; and

providing, in the system, said rule object and said allocation data, for use by a processing unit that receives position data detected on said one or more position-coded bases.

42. (Original) The method as claimed in claim 41, wherein said allocation data allows the processing unit, upon receipt of said position data, to obtain the rule object.

43. (Previously Presented) The method as claimed in claim 41, further comprising providing, by a storage unit, the current graphical object in the system, and allowing the processing unit, upon receipt of said position data, to obtain the current graphical object from the storage unit.

44. (Previously Presented) The method as claimed in claim 43, further comprising providing locating data, which identifies the location of the current graphical object in the storage unit, and allowing the processing unit, upon receipt of said position data, to locate the current graphical object.

45. (Currently Amended) A method of enabling, in an information processing system, printing on demand of one or more position-coded bases including a graphical layer and a coding layer, the graphical layer including ~~including~~ [[with]] user-readable graphical information ~~thereon~~, said user-readable graphical information being included in a graphical object, said system comprising a plurality of processing units which are designed to receive position data detected by digital units on the position-coded bases and to process the received position data according to predetermined rules, said method comprising:

detecting a selection of a graphical object among a ~~[[set]]~~ plurality of graphical objects pre-stored in the system, the graphical object including user-readable graphical information configured for application to a substrate;

assigning, on command in response to the selection of the current graphical object, position data for the current graphical object from a position data bank, the

position data representing position code to be printed on the coding layer and the current graphical object represents user-readable graphic information to be printed on the graphical layer ~~a plurality of optically detectable marks~~;

providing said assigned position data in the system, for use in the printing of said one of more position-coded bases;

generating allocation data which associates said assigned position data with the current graphical object; and

directing, on the basis of said allocation data, the position data detected by one of the digital units to a current processing unit among the plurality of processing units in the system.

46. (Original) The method as claimed in claim 45, further comprising receiving, with the command to assign position data, an object identifier which identifies the current graphical object in the system, and including said object identifier in said allocation data.

47. (Original) The method as claimed in claim 46, further comprising storing an association between each object identifier and a network address of one of said processing units, wherein said directing is effected on the basis of said allocation data and said association.

48. (Previously Presented) The method as claimed in claim 45, further comprising generating an instance identifier which identifies the assignment of position data, and including said instance identifier in said allocation data.

49. (Previously Presented) The method as claimed in claim 48, further comprising associating the instance identifier with graphical data which is to be included in the base together with the graphic information, thereby making said graphical data accessible, based on said allocation data, to the current processing unit.

50. (Previously Presented) The method as claimed in claim 48, further comprising including said graphical data in the instance identifier.

51. (Currently Amended) A system for associating position data with graphical objects on a page including a graphical layer and a coding layer, the system comprising:

a first memory for storing ~~[[the]]~~ a plurality of graphical objects;

a second memory containing position data to be assigned to at least some of the graphical objects, wherein the position data represents position code to be printed on the coding layer ~~a plurality of optically detectable marks~~;

an interface configured to receive a user command selecting from the plurality of graphical objects stored in the first memory at least one graphical object to which position data is to be assigned, the at least one graphical object characterized by user-readable graphic information and configured for application to the graphical layer of a substrate; and

a processor configured to assign position data from the second memory to the at least one graphical object in response to the selection by the user.

52. (Previously Presented) The system of claim 51, wherein a subset of the graphical objects stored in the first memory constitute a representation of a page of information, and wherein the interface is configured to permit a user to assign position data to at least part of the page of information.

53. (Previously Presented) The system of claim 52, wherein the subset of the graphical objects representing the page of information initially lack position data, and wherein the interface is configured to permit a user to cause the processor to assign position data to the page of information, wherein the system is further configured to store a link between the page of information and the assigned position data.